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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,972	01/05/2004	Hiroshi Okada	Q78713	1870

23373 7590 04/06/2005

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EXAMINER	
BELLAMY, TAMIKO D	

ART UNIT	PAPER NUMBER
2856	

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/750,972	OKADA ET AL.	
	Examiner	Art Unit	
	Tamiko D. Bellamy	2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 February 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5 and 7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5 and 7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/1/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-3, 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kogure et al. (JP2001-356040A) in view of Wolf et al (EP575971A1).

Re to claim 1, Kogure et al. discloses a float (13), which produces a displacement with the liquid level. Kogure et al. discloses in fig. 10 a sensor part (e.g., combination of Hall IC (21) and a circuit board (e.g., flexible passive circuit 20)) (Pg. 4, par. 39). Kogure et al. discloses in fig. 10, a casing (e.g., combination of setting bracket (2) and flange (16b)) accommodating the sensor part (e.g., combination of Hall IC (21) and a circuit board (e.g., flexible passive circuit 20)) (Pg. 4, par. 39). Kogure et al. does not specifically disclose that the casing is isolated from the liquid. Wolf et al. discloses in fig. 17 a casing (e.g., housing 221) accommodating a sensor part (e.g., Hall IC 204, 210). Therefore, to modify Kogure et al. by employing on a casing isolated from liquid would have been obvious to one of ordinary skill in the art at the time of the invention since Wolf et al. teaches a contactless angular position sensor having theses design characteristics. The skilled artisan would be motivated to combine the teachings of Kogure et al. and Wolf et al. since Kogure et al. states that his invention is applicable to level detector including a sensor part attached to a pivot device/float arm and Wolf et al. is directed to contactless angle position sensor coupled to a pivotally mounted device.

Re to claim 2, Kogure et al. discloses in fig. 10, a magnet (17) that rotates in accordance with the displacement of the float (13).

Re to claim 3, as depicted in fig. 10, Kogure et al. discloses the Hall IC and the magnet providing a non-contact coupling of the between the magnet and the Hall IC. Kogure et al. does not specifically discloses the Hall IC and the magnet providing a non-contact coupling which couples the float and the sensor part in a non-contact way. As depicted in fig. 17, Wolf et al. discloses a Hall IC (210,204) and the magnet (202) providing a non-contact coupling which couples the pivotally mounted device and the sensor part in a non-contact way. Therefore, to modify Kogure et al. by employing on a Hall IC and the magnet providing a non-contact coupling which couples the float and the sensor part in a non-contact way would have been obvious to one of ordinary skill in the art at the time of the invention since Wolf et al. teaches a contactless angular position sensor having theses design characteristics. The skilled artisan would be motivated to combine the teachings of Kogure et al. and Wolf et al. since Kogure et al. states that his invention is applicable to level detector including a sensor part attached to a pivot device/float arm and Wolf et al. is directed to contactless angle position sensor coupled to a pivotally mounted device.

Re to claims 5 and 7, as depicted in fig. 10, Kogure et al. discloses a Hall IC (21) comprising a housing, yokes (18, 19) and a circuit board (e.g., flexible substrare with passive circuit 20).

Response to Remarks

3. Applicant's arguments with respect to claim1-3, 5 and 7 have been considered but are moot in view of the new ground(s) of rejection. It is the examiners position that claims 1-3, 5,

and 7 are not patentable in view of the newly applied art of Kogure et al. (JP2001-356040A) in view of Wolf et al (EP575971A1).

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamiko D. Bellamy whose telephone number is (571) 272-2190. The examiner can normally be reached on Monday - Friday 7:30 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tamiko Bellamy
T.B
April 4, 2005

HEZRON WILLIAMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800